Norm's Utility Contractor, Inc.
Portable Hot-Mix Asphalt Plant Permit Application
Grain Loading Standard

Source Information

Manufacturer:	Cedarapids
Model No:	8835
Fuel:	Natural Gas

Dryer Data

PM Emission Rate:	5.75	lb/hr

Exit/Flue Gas Flow Rate Calculation

ACFM*	52,800	acfm
Stack Temperature*	790.8	R
Stack Pressure*	30.3	inHg
Stack Moisture*	27.4	%

Exit flow rate: = ACFM(Std T(°R)/Stack T(°R))(Stack P (inHg)/Std P(inHg))((100-%H20)/100))

Exit flow rate: = 25,919 dscfm

Grain loading

Calculated: Natural Gas	0.03 gr/dscf
NSPS Loading Standard [40 CFR 60.92(a)(1)]:	0.04 gr/dscf

Result:	**Meet the grain loading standard:**	**Yes**

* *Supplied by Norm's Utility Inc.*

Norm's Utility Contractor, Inc.
Portable Hot-Mix Asphalt Plant Permit Application
Asphalt Storage Tank Heater Grain Loading Calculation

Boiler Data

Rated Heat Input:	2.115 MMBtu/hr
PM Emission Rate:	0.02 lb/hr
Fuel:	**Natural Gas**

Exit/Flue Gas Flowrate Calculaiton

Fd (Table 19.2 EPA Method 19)	8710 dscf/MMBtu
Exit flowrate @ 0% O2:	307.0 dscfm
Exit flowrate @ 3% O2:	358.5 dscfm

Grain loading

Calculated:	0.005 gr/dscf
Loading Standard (IDAPA 58.01.01.675):	0.015 gr/dscf

Result:	**Meet the grain loading standard:**	**Yes**

DEQ Verification Worksheets: HMA Drum Mix Facility Data-UNCONTROLLED

Facility ID/AIRS No.	777-00372	Spreadsheet Date	3/13/2006 16:51
Permit No.	P-060100	HMA Type: Drum Mix or Batch ?	Drum Mix
		Include Silo Fill & Loadout Emissions?	1
Facility Owner/Company Name:	Norm's Utility Contractor, Inc, Rathdrum, Portable HMA		
Address:	P.O. Box 2047		
City, State, Zip:	Coeur d'Alene, Idaho 83816		
Facility Contact:	Tom Mattix		
Contact Number/ e-mail:	(208) 661-5076		
Is this HMA facility subject to NSPS? Yes=1,No=0	1	Commenced Operations in:	1991
Use Short Term Source Factor on 586 ELs? Y or N	N	Use STSF on 586 AACC? Y/N	N

Hot Mix Plant AP-42 Section 11.1)	Input (Bold Color) or Calculated Value (Black)	Fuel Type(s)	Fuel Type Toggle ("0" or "1")
Drum Dryer Make/Model	Cedarapids 8835		
		#2 Fuel Oil	0
Rated heat input capacity, MMBtu/hr	88.2	Used Oil or RFO4 Oil	0
Drum Dryer Hourly Throughput, Tons/hr	250	Natural Gas	1
Hours of operation per day	24	LPG or Propane	0
Hours of operation per year (=Throughput Annual/Hourly)	8,760	Exit Gas Volume (acfm)	52,800
Max Throughput at Annual Hours, Tons/yr	2,190,000	Exit Gas Temperature (°F)	331.13
Max Throughput (Proposed Limit), T/yr	2,190,000	Stack Pressure (in Hg)	30.300
Used Oil max sulfur content (Default is 0.5%)	0.50%	Stack Moisture Content, %	27.40

Proposed hours per year = 2,800. Annual hours of operation based on max hourly and annual throughput is only 1,200

Asphalt Tank Heater AP-42, Section 11.1 (oil or natural gas fuel), or Section 1.4 (natural gas fuel)			
Rated heat input capacity (MMBtu)	2.115	Fuel Type(s)	Fuel Toggle
Hours of operation per day	24.00	#2 Fuel Oil	0
Operation, days per year	365	Used Oil	0
Hours of operation per year	8,760	Natural Gas	1
Exit Flow (acfm) or Velocity (fps) ACFM	850	Indirect Heat or Power? Y or N	N
Exhaust exit gas temperature (°F)	450		

Tank Heater Fuel Consumption	#2 Fuel Oil	Natural Gas
Heat Input Rating (MMBtu/hr)	2.115	2.115
Fuel Heating Value, Btu/gal (oil) or Btu/scf (gas)	139,000	1,050
Heating Value Correction for Natural Gas EFs, see Note	n/a	1.029
Theoretical Max Fuel Use Rate gal/hr [oil] or scf/hr [gas]	15.22	2,014
Max Operational Hours per Year (Proposed Limit)	8,760	8,760
Note: AP-42 EFs for natural gas combustion (Tables 1.4-xx) are based on heat value of 1,020 Btu/scf. EFs for other fuel heating values must be multiplied by the ratio of the specified heating value to 1,020.		

Electrical Generator < 600 hp (447 kW) AP-42 Section 3.3 (diesel fueled)			
		Fuel Type(s)	Fuel Toggle
Generator Make/Model	Make/Model	#2 Fuel Oil (Diesel)	0
	xxx kW	Gasoline	0
EF OPTIONS: Use EFs in lb/hp-hr	0	Use EFs in lb/MMBtu	0
1) Input Rated Capacity, kW	320	Max Fuel Use Rate, gal/hr	23
Spreadsheet conversion from kW to hp:	429	Fuel Heating Value, Btu/gal	137,030
OR 2) Input Rated Capacity, hp		Calculated MMBtu/hr	3.1517
Max Operational Hours/Day	0	Max Operational Hours/Day	0
Max Operational Hours per Year (Proposed Limit)	0	Max Operational Hours/Year	0
Note: 1 hp = 0.7456999 kW			

Electrical Generator > 600 hp (447 kW) AP-42 Section 3.4 (diesel or dual fuel)			
		Fuel Type(s)	Fuel Toggle
Generator Make/Model	Make/Model	#2 Fuel Oil (Diesel)	0
	xxx kW	Dual Fuel (diesel/natural gas)	0
FUEL OPTIONS: #2 Fuel Oil (Diesel)		Natural Gas Fuel	
Max Sulfur weight percent (w/o)	0.5	Max Sulfur w/o	0.5
Max Fuel Use Rate, gal/hr	54.81	Max Fuel Use Rate, scf/hr	1000.0
Fuel Heating Value, Btu/gal	137,030	Fuel Heating Value, Btu/scf	1,020
Calculated MMBtu/hr	7.51	Calculated MMBtu/hr	1.020
Max Operational Hours per Day	24	Max Operational Hours per Day	0
Max Operational Hours per Year	5,314	Max Operational Hours per Year	5,314

Note: AP-42 Table 3.4-1 EFs presume dual fuel operation of 5% diesel and 95% natural gas.
Note: AP-42 Tables 3.3-x,3.4-x: avg diesel heating value assumed 19,300 Btu/lb with density equal 7.1 lb/gal=> Btu/gal = 137,030

HMA Drum Mix Fabric Filter Toolkit_B1-Facility Data Input_Version C_02/17/2006 Page 1

Facility:	**Norm's Utility Contractor, Inc, Rathdrum, Portable HMA**	**SB, App. B- UNCONTROLLED**
3/13/2006 17:18	**Permit/Facility ID:** **P-060100** **777-00372**	

Tier I Applicability Determination (Major Source as defined in IDAPA 58.01.01.008)

Hourly Throughput	250 T/hr
Annual Hours Operating	8,760 hrs/yr
Max Annual Throughput	2,190,000 Tons/yr (Theoretical Maximum HMA at Max. Annual Operating Hours)
Max Annual Throughput	2,190,000 Tons/yr (Proposed HMA Throughput Limit)

Potential to Emit (PTE)[1]: The maximum capacity of a facility to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility to emit an air pollutant, provided the limitation or its effect on emissions is state or federally enforceable, shall be treated as part of its design. Limitations may include, but are not limited to, air pollution control equipment and restrictions on hours of operation or on the type or amount of materials combusted, stored, or processed. [58.01.01.006.72]

[1]PTE includes emissions from point sources, as applicable (drum dryer, tank heater, and generator). Fugitive emissions are NOT included.

Annual Emissions of CAA Title V Hazardous Air Pollutants[3] (total PTE from HMA facility)

IDAPA 58.01.01.xx	Pollutant	Tier I Major Source Definition (T/yr)	PTE Maximum T/yr
006.10.a	Emit any HAP[4] >	10	3.40
006.10.a	Emit total HAPs[5]>	25	6.01

[3] Per 58.01.01.006.10.a. HAPs are defined as pollutants listed pursuant to 42 U.S.C. 7412(b), i.e., the initial list of 100 HAPs

[4] Screened using worksheet function seeking max lb/hr for any HAP from B4&5 Max Controlled Emissions (TPY)

[5] Total HAPs (T/yr) from B4&5 Max Controlled Emissions (TPY)

Annual Emissions of CAA Title V Regulated Pollutants (total PTE from HMA facility)

IDAPA 58.01.01.xx	Pollutant	Tier I Major Source Definition (T/yr)	PTE Maximum T/yr
006.82 c	PM (total)	100	30660.1
006.82 b, c	PM-10 (total)	100	7117.6
006.82 b, c	PM-2.5 (total)	100	3.18
006.82.a, b	CO	100	143.1
006.82.a, b	NOx	100	29.4
006.82 b	SO_2	100	3.7
006.82 b	Ozone (VOCs)[7]	100	35.1
006.82 b	Lead	100	6.83E-04

[6] Emissions without Limits = emissions without physical or operational limits (i.e., w/o baghouse for drum dryer, operate as continuous process 8760 hrs/yr)
FOR NORM's HMA: Worksheets for drum dryer emissions using natural gas fuel use EFs for fabric filter for PM, PM10.
Estimate uncontrolled emissions by multiplying drum dryer lb/hr from B4&5-MaxControlledEmissions by Uncontrolled EF/Controlled EF for PM and PM10
Uncontrolled PM = 28, Fabric Filter PM EF = 0.033 Uncontrolled PM10 = 6.5, Fabric Filter PM10 EF = 0.023
Drum Dryer PTE in lb/hr x (8,760 hrs/yr)/(2000 lb/T)(28/0.033) + Tank Heater PTE in lb/hr x (8760/2000) '+ Generator PTE in lb/hr x (8760/2000)

[7]Ozone formation is estimated based on emissions of VOCs, which are in turn often estimated by presuming all TOC emissions are VOCs.

006.82.a: NOx and VOCx
006.82.b: NAAQS pollutants
006.82.c: Pollutant subject to standard under 42 U.S.C. 7411 (NSPS) [For HMAs subject to NSPS, this includes only PM]
006.82.d: Class I or Class II substance subject to standard under 42 USC 7671a(a) or 7671a(b) [Ozone-Depleting Substances]
Class I: CFC-11, 12, 13, 111, 112, 113, 114, 115, 211 thru 217, Halon 1211, 1301, 2402, carbon tetrachloride, methyl chloroform
Class II: HCFC-21, 22, 31, 121 thru 124, 131, 132, 133, 141, 142, 221 thru 225, 231 thru 235, 241 thru 244, 251, 252, 253, 261, 262, 271
006.82.e: Pollutant subject to standard under 42 USC 7412 (HAPs),
including 7412(g) [Title V MACT, including (g)(2) which includes only pollutants subject to the MACT],
(j) [Title V "MACT" emission limit from State or EPA, case-by-case basis where MACT std not yet promulgated], and
(r) [RMP, where regulated substances are listed in 40 CFR 68.130]

Facility: Norm's Utility Contractor, Inc, Rathdrum, Portable HMA

SB, App. B - UNCONTROLLED

3/13/2006 17:02 **Permit/Facility ID:** P-060100 777-00372

POTENTIAL TO EMIT
TONS PER YEAR

Maximum Controlled Emissions of Any Pollutant from Drum Mix HMA Plant with Fabric Filter, Tank Heater, Generator, Load-out/Silo/Asphalt Storage

A. Drum Mix Plant: 250 Tons/hour 8,760 Hours/year 2,190,000 Tons/year HMA throughput 24 hrs/day
Maximum emission for each pollutant from any fuel-burning opoons selected on "Facility Data" worksheet. Fuels Selected = Natural Gas

B. Tank Heater: 2.1150 MMBtu Rat 8,760 Hours/year 24 hrs/day
Maximum emission for each pollutant for heater burning any fuel selected on "Facility Data" worksheet. Fuels Selected = Natural Gas

C. Generator: 0 gal/hour 0 Hours/year Generator>600h **No Generator** #2 Fuel Oil 24 hrs/day

Pollutant	A Drum Mix Max Emission Rate for Pollutant (T/yr)	B Asphalt Tank Heater Max Emission Rate for Pollutant (T/yr)	C Generator Max Emission Rate for Pollutant (T/yr)	D Load-out, Silo Filling, & Tank Storage Emission Rate for Pollutant (T/yr)	E TOTAL of Max Emission Rates from A, B, & C (T/yr) Exclude Fugitives from D
PM (total)	30680.00	6.90E-02	0.00E+00	5.72E-01	30680.07
PM-10 (total)	7117.50	6.90E-02	0.00E+00	5.72E-01	7117.57
P.M.-2.5	3.18	0.00E+00	0.00E+00	5.72E-01	3.18
CO	142.35	7.63E-01	0.00E+00	1.48E+00	143.11
NOx	28.47	9.08E-01	0.00E+00		29.38
SO_2	3.72	5.45E-03	0.00E+00		3.73
VOC	35.04	5.00E-02	0.00E+00	1.76E-01	35.09
Lead	6.79E-04	4.54E-06	0.00E+00		6.83E-04
HCl*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Dioxins*					
2,3,7,8-TCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total TCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,7,8-PeCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total PeCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,4,7,8-HxCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,6,7,8-HxCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,7,8,9-HxCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total HxCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total HpCDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Octa CDD	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total PCDD*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Furans*					
2,3,7,8-TCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total TCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,7,8-PeCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
2,3,4,7,8-PeCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total PeCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,4,7,8-HxCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,6,7,8-HxCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
2,3,4,6,7,8-HxCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,7,8,9-HxCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total HxCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total HpCDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Octa CDF	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total PCDF*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Total PCDD/PCDF*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Non-PAH HAPs					
Acetaldehyde*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Acrolein*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Benzene*	4.27E-01	1.91E-05	0.00E+00	6.64E-03	4.27E-01
1,3-Butadiene*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ethylbenzene*	2.63E-01	0.00E+00	0.00E+00	3.91E-02	2.63E-01
Formaldehyde*	3.39E+00	6.81E-04	0.00E+00	9.61E-02	3.40E+00
Hexane*	1.01E+00	1.63E-02	0.00E+00		1.02E+00
Isooctane	4.38E-02	0.00E+00	0.00E+00	1.20E-04	4.38E-02
Methyl Ethyl Ketone*	0.00E+00	0.00E+00	0.00E+00	7.44E-03	0.00E+00
Pentane*	0.00E+00	2.36E-02	0.00E+00		2.36E-02
Propionaldehyde*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Quinone*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Methyl chloroform*	5.26E-02	0.00E+00	0.00E+00	0.00E+00	5.26E-02
Toluene*	1.64E-01	3.09E-05	0.00E+00	1.79E-02	1.64E-01
Xylene*	2.19E-01	0.00E+00	0.00E+00	6.68E-02	2.19E-01
TOTAL PAH HAPs (T/yr) =					**2.06E-01**
TOTAL Federal HAPs (T/yr)=					**6.01E+00**
TOTAL Idaho TAPs (T/yr) =					**6.09E+00**

Pollutant	A Drum Mix Max Emission Rate for Pollutant (T/yr)	B Asphalt Tank Heater Max Emission Rate for Pollutant (T/yr)	C Generator Max Emission Rate for Pollutant (T/yr)	D Load-out, Silo Filling, & Tank Storage Emission Rate for Pollutant (T/yr)	E TOTAL of Max Emission Rates from A, B, & C (T/yr) Exclude Fugitives from D
PAH HAPs					
2-Methylnaphthalene	8.10E-02	2.18E-07	0.00E+00	2.35E-02	8.10E-02
3-Methylchloranthrene*	0.00E+00	1.63E-08	0.00E+00		1.63E-08
Acenaphthene	1.53E-03	1.63E-08	0.00E+00	2.28E-03	1.53E-03
Acenaphthylene	9.42E-03	1.63E-08	0.00E+00	1.43E-04	9.42E-03
Anthracene	2.41E-04	2.18E-08	0.00E+00	6.23E-04	2.41E-04
Benzo(a)anthracene*	2.30E-04	1.63E-08	0.00E+00	2.27E-04	2.30E-04
Benzo(a)pyrene*	1.07E-05	1.09E-08	0.00E+00	8.59E-06	1.07E-05
Benzo(b)fluoranthene*	1.10E-04	1.63E-08	0.00E+00	2.84E-05	1.10E-04
Benzo(e)pyrene	1.20E-04	0.00E+00	0.00E+00	5.55E-05	1.20E-04
Benzo(g,h,i)perylene	4.38E-05	1.09E-08	0.00E+00	7.09E-06	4.38E-05
Benzo(k)fluoranthene*	4.49E-05	1.63E-08	0.00E+00	8.21E-06	4.49E-05
Chrysene*	1.97E-04	1.63E-08	0.00E+00	9.68E-04	1.97E-04
Dibenzo(a,h)anthracene	0.00E+00	1.09E-08	0.00E+00	1.38E-06	1.09E-08
Dichlorobenzene	0.00E+00	1.09E-05	0.00E+00		1.09E-05
Fluoranthene	6.68E-04	2.72E-08	0.00E+00	6.04E-04	6.68E-04
Fluorene	4.16E-03	2.54E-08	0.00E+00	5.68E-03	4.16E-03
Indeno(1,2,3-cd)pyrene*	7.67E-06	1.63E-08	0.00E+00	1.75E-06	7.68E-06
Naphthalene*	9.86E-02	5.54E-06	0.00E+00	9.73E-03	9.86E-02
Perylene	9.64E-06	0.00E+00	0.00E+00	1.66E-04	9.64E-06
Phenanthrene	8.32E-03	1.54E-07	0.00E+00	8.03E-03	8.32E-03
Pyrene	5.91E-04	4.54E-08	0.00E+00	1.78E-03	5.91E-04
Non-HAP Organic Compounds					
Acetone*	0.00E+00	0.00E+00	0.00E+00	9.47E-03	0.00E+00
Benzaldehyde	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Butane	7.34E-01	1.91E-02	0.00E+00		7.53E-01
Butyraldehyde	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Crotonaldehyde*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Ethylene	7.67E+00	0.00E+00	0.00E+00	1.75E-01	7.67E+00
Heptane	1.03E+01	0.00E+00	0.00E+00		1.03E+01
Hexanal	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Isovaleraldehyde	0.00E+00	0.00E+00	0.00E+00		0.00E+00
2-Methyl-1-pentene	4.38E+00	0.00E+00	0.00E+00		4.38E+00
2-Methyl-2-butene	6.35E-01	0.00E+00	0.00E+00		6.35E-01
3-Methylpentane	2.08E-01	0.00E+00	0.00E+00		2.08E-01
1-Pentene	2.41E+00	0.00E+00	0.00E+00		2.41E+00
n-Pentane*	2.30E-01	0.00E+00	0.00E+00		2.30E-01
Valeraldehyde*	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Metals					
Antimony*	1.97E-04	0.00E+00	0.00E+00		1.97E-04
Arsenic*	6.13E-04	1.62E-06	0.00E+00		6.15E-04
Benum*	6.35E-03	4.00E-05	0.00E+00		6.39E-03
Beryllium*	0.00E+00	1.09E-07	0.00E+00		1.09E-07
Cadmium*	4.49E-04	9.99E-06	0.00E+00		4.59E-04
Chromium*	6.02E-03	1.27E-05	0.00E+00		6.04E-03
Cobalt*	2.85E-05	7.63E-07	0.00E+00		2.92E-05
Copper*	3.39E-03	7.72E-06	0.00E+00		3.40E-03
Hexavalent Chromium*	4.93E-04	0.00E+00	0.00E+00		4.93E-04
Manganese*	8.43E-03	0.00E+00	0.00E+00		8.43E-03
Mercury*	2.63E-04	0.00E+00	0.00E+00		2.63E-04
Molybdenum*	0.00E+00	9.99E-06	0.00E+00		9.99E-06
Nickel*	6.90E-02	0.00E+00	0.00E+00		6.90E-02
Phosphorus*	3.07E-02	0.00E+00	0.00E+00		3.07E-02
Silver*	5.26E-04	0.00E+00	0.00E+00		5.26E-04
Selenium*	3.83E-04	0.00E+00	0.00E+00		3.83E-04
Thallium*	4.49E-06	0.00E+00	0.00E+00		4.49E-06
Vanadium*	0.00E+00	2.09E-05	0.00E+00		2.09E-05
Zinc*	6.66E-02	0.00E+00	0.00E+00		6.66E-02

a) IDAPA Toxic Air Pollutant

Facility: Norm's Utility Contractor, Inc, Rathdrum, Portable HMA **App.B - UNCONTROLLED**

3/13/2006 17:02 Permit/Facility ID: P-060100 777-00372 **POTENTIAL TO EMIT**

TONS PER YEAR

age Max Emissions of Any Pollutant from Drum Mix HMA Plant: Fabric Filter, Tank Heater, Generator, Load-out/Silo/Asphalt Storage

A. Drum Mix Plant: 250 Tons/hour 8,760 Hours/year 2,190,000 Tons/year HMA throughput 24 hrs/day

Maximum emission for each pollutant from any fuel-burning option selected Fuels Selected = Natural Gas

B. Tank Heater: 2.1150 MMBtu Rated 8,760 Hours/year 24 hrs/day

Maximum emission for each pollutant from any fuel-burning option selected Fuels Selected = Natural Gas

C. Generator: 0 gal/hour 0 Hours/year No Generator #2 Fuel Oil Generator>600hp 24 hrs/day

Pollutant	A Drum Mix Max Emission Rate for Pollutant (T/yr)	B Asphalt Tank Heater Max Emission Rate for Pollutant (T/yr)	C Generator Max Emission Rate for Pollutant (T/yr)	D Load-out, Silo Filling, & Tank Storage Emission Rate for Pollutant (T/yr)	E TOTAL of Max Emission Rates from A, B, & C (T/yr) Exclude Fugitives from D
non-PAH HAPs[a]					
Bromomethane[a]				6.60E-04	0.00E+00
2-Butanone (see Methyl Ethyl Ketone)					0.00E+00
Carbon disulfide[a]				1.32E-03	0.00E+00
Chloroethane (Ethyl chloride[a])				1.92E-04	0.00E+00
Chloromethane (Methyl chloride[a])				1.73E-03	0.00E+00
Cumene				5.01E-03	0.00E+00
n-Hexane				0.00E+00	0.00E+00
Methylene chloride (Dichloromethane[a])				1.23E-05	0.00E+00
MTBE				0.00E+00	0.00E+00
Styrene[a]				5.78E-04	0.00E+00
Tetrachloroethane (Tetrachloroethylene[a])				3.51E-04	0.00E+00
1,1,1-Trichloroethane (Methyl chloroform[a])				0.00E+00	0.00E+00
Trichloroethene (Trichloroethylene[a])				0.00E+00	0.00E+00
Trichlorofluoromethane				5.92E-05	0.00E+00
m-/p-Xylene[a]				2.78E-02	0.00E+00
o-Xylene[a]				3.90E-02	0.00E+00
Phenol[a]				4.41E-03	0.00E+00
Non-HAP Organic Compounds					
Methane				1.48E+00	0.00E+00

a) IDAPA Toxic Air Pollutant

Facility: Norm's Utility Contractor, Inc, Rathdrum, Portable HMA

3/13/2006 17:31 Permit/Facility ID: P-060100 777-00372

SB, AppB - UNCONTROLLED

TAPs EL Screening

586 pollutants are shown in bold/red. Page 1 of 2

Max Emissions of Any Pollutant from Drum Mix HMA Plant with Fabric Filter, Tank Heater, Generator, Load-out/Silo/Asphalt Storage

A. Drum Mix Plant: 250 Tons/hour 8,760 Hours/year 2,190,000 Tons/year HMA throughput

Maximum emission for each pollutant from any fuel-burning option selected on "Facility Data" worksheet

B. Tank Heater: 2.1150 MMBtu Rated 8,760 Hours/year D. Include all emissions from Load-out/Silo Filling? Yes

Maximum emission for each pollutant for heater burning any fuel selected on "Facility Data" worksheet Short Term Source Factor 586 ELs? 1

C. Generator: 0 gal/hour 0 Hours/year Small or Large Generator using Diesel Fuel

Pollutant	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment[b] (lb/hr)	TAPs Emissions Exceed EL Increment?	
HCl*	0.00	0.05	No	
Dioxins*		**Toxic Equivalency Factor[c]**	**Adjusted Emission Rate (lb/hr)**	
2,3,7,8-TCDD	0.00E+00	1.0	0.00E+00	
Total TCDD	0.00E+00	n/a		
1,2,3,7,8-PeCDD	0.00E+00	0.5	0.00E+00	
Total PeCDD	0.00E+00	n/a		
1,2,3,4,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDD	0.00E+00	0.1	0.00E+00	
Total HxCDD	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.01	0.00E+00	
Total HpCDD	0.00E+00	n/a		
Octa CDD	0.00E+00	n/a		
Total PCDD*	0.00E+00	n/a		
Furans*				
2,3,7,8-TCDF	0.00E+00	0.1	0.00E+00	
Total TCDF	0.00E+00	n/a		
1,2,3,7,8-PeCDF	0.00E+00	0.05	0.00E+00	
2,3,4,7,8-PeCDF	0.00E+00	0.5	0.00E+00	
Total PeCDF	0.00E+00	n/a		
1,2,3,4,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
2,3,4,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDF	0.00E+00	0.1	0.00E+00	
Total HxCDF	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.01	0.00E+00	
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.01	0.00E+00	
Total HpCDF	0.00E+00	n/a		
Octa CDF	0.00E+00	n/a		
Total PCDF*	0.00E+00	n/a		
Total PCDD/PCDF*	0.00E+00	n/a		

TOTAL Dioxin/Furans*	Adjusted lb/hr 0.00E+00	TAPs EL for 2,3,7,8 TCDD 1.53E-10	Exceeds TAPs EL? No	Modeled?
Non-PAH HAPs		**TAPs EL**		
Acetaldehyde*	0.00E+00	3.00E-03	No	
Acrolein*	0.00E+00	0.017	No	
Benzene*	9.90E-02	8.00E-04	Exceeds	YES
1,3-Butadiene*				
Ethylbenzene*	6.69E-02	29	No	
Formaldehyde*	7.97E-01	5.10E-04	Exceeds	YES
Hexane*	2.34E-01	12	No	
Isooctane	1.00E-02			
Methyl Ethyl Ketone*	1.70E-03	39.3	No	
Pentane*	5.29E-03	118	No	
Propionaldehyde*	0.00E+00	0.0287	No	
Quinone*	0.00E+00	0.027	No	
Methyl chloroform*	1.20E-02	127	No	
Toluene*	4.16E-02	25	No	
Xylene*	6.53E-02	29	No	
TOTAL PAH HAPs (lb/hr) =		**1.44E+00**		
TOTAL Federal HAPs (lb/hr)=		**1.44E+00**		
TOTAL Idaho TAPs (lb/hr) =		**1.43E+00**		

Pollutant	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment[b] (lb/hr)	TAPs Emissions Exceed EL Increment?	Modeled?
PAH HAPs				
2-Methylnaphthalene	2.39E-02			
3-Methylchloranthrene*	3.73E-09	2.50E-06	No	No
Acenaphthene	8.70E-04			
Acenaphthylene	2.18E-03			
Anthracene	1.97E-04			
Benzo(a)anthracene	1.04E-04			
Benzo(a)pyrene*	4.41E-05	2.00E-06	Exceeds	See POM
Benzo(b)fluoranthene	3.15E-05			
Benzo(e)pyrene	4.02E-05			
Benzo(g,h,i)perylene	1.16E-05			
Benzo(k)fluoranthene	1.21E-05			
Chrysene	2.66E-04			
Dibenzo(a,h)anthracene	3.18E-07			
Dichlorobenzene	2.49E-06			
Fluoranthene	2.99E-04			
Fluorene	2.25E-03			
Indeno(1,2,3-cd)pyrene	2.15E-06			
naphthalene*	2.47E-02	3.33	No	No
Perylene	4.03E-05			
Phenanthrene	3.73E-03			
Pyrene	5.42E-04			
PolycyclicOrganicMatter[d,e]	4.21E-04	2.00E-06	Exceeds	YES
Non-HAP Organic Compounds				
Acetone*	2.16E-03	119	No	No
Benzaldehyde	0.00E+00			
Butane	1.72E-01			
Butyraldehyde	0.00E+00			
Crotonaldehyde*	0.00E+00	0.38	No	No
Ethylene	1.73E+00			
Heptane	2.35E+00	109	No	No
Hexanal	0.00E+00			
Isovaleraldehyde	0.00E+00			
2-Methyl-1-pentene	1.09E+00			
2-Methyl-2-butene	1.45E-01			
3-Methylpentane	4.75E-02			
1-Pentene	5.50E-01			
n-Pentane*	5.25E-02	118	No	No
Valeraldehyde (n-Valeraldehyde*)	0.00E+00	11.7	No	No
Metals				
Ammonia*	4.50E-05	0.033	No	No
Arsenic*	1.40E-04	1.50E-06	Exceeds	YES
Barium*	1.48E-03	0.033	No	No
Beryllium*	2.49E-08	2.80E-05	No	No
Cadmium*	1.05E-04	3.70E-06	Exceeds	YES
Chromium*	1.38E-03	0.033	No	No
Cobalt*	6.67E-06	0.0033	No	No
Copper*	7.77E-04	0.013	No	No
Hexavalent Chromium*	1.13E-04	5.60E-07	Exceeds	YES
Manganese*	1.93E-03	0.067	No	No
Mercury*	8.00E-05	0.003	No	No
Molybdenum*	2.28E-06	0.333	No	No
Nickel*	1.58E-02	2.70E-05	Exceeds	YES
Phosphorus*	7.00E-03	0.007	No	No
Silver*	1.20E-04	0.007	No	No
Selenium*	8.75E-05	0.013	No	No
Thallium*	1.05E-06	0.007	No	No
Vanadium*	4.77E-06	0.003	No	No
Zinc*	1.53E-02	0.667	No	No

a) Reserved

b) Toxic Air Pollutants, IDAPA 58.01.01.585 and 586, levels in effect as of January 27, 2006

c) Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and Dibenzofurans (CDDs and CDFs), 1989 update, EPA/625/3-89/016, March 1989 (Source: Mike Dubois, DEQ State Office, April 2005)

n/a = not available IDAPA 58.01.01.586, TAPs Carcinogenic Increments: Total of adjusted emission rates are treated as a single TAP (2,3,7,8 TCDD)

d) IDAPA 58.01.01.585, Polycyclic Organic Matter: Emissions of PAHs shown in bold shall be considered together as one TAP equivalent in potency to benzo(a)pyrene.

e) IDAPA Toxic Air Pollutant, 58.01.01.585 or 586

Facility: Norm's Utility Contractor, Inc, Rathdrum, Portable HMA

3/13/2006 17:31 Permit/Facility ID: P-060100 777-00372

SB, AppB - UNCONTROLLED

TAPs EL Screening

586 pollutants are shown in bold red. Page 1 of 2

Max Emissions of Any Pollutant from Drum Mix HMA Plant with Fabric Filter, Tank Heater, Generator, Load-out/Silo/Asphalt Storage

A. Drum Mix Plant: 350 Tons/hour 8,760 Hours/year 2,190,000 Tons/year HMA throughput

Maximum emission for each pollutant from any fuel-burning option selected on "Facility Data" worksheet

B. Tank Heater: 2.1150 MMBtu Rated 8,760 Hours/year D. Include all emissions from Load-out/Silo Filling? Yes

Maximum emission for each pollutant for heater burning any fuel selected on "Facility Data" worksheet Short Term Source Factor 586 ELs? 1

C. Generator: 0 gal/hour 0 Hours/year Small or Large Generator using Diesel Fuel

Pollutant	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment[b] (lb/hr)	TAPs Emissions Exceed EL Increment?	
HCl*	0.00	0.05	No	
Dioxins*		**Toxic Equivalency Factor[c]**	**Adjusted Emission Rate (lb/hr)**	
2,3,7,8-TCDD	0.00E+00	1.0	0.00E+00	
Total TCDD	0.00E+00	n/a		
1,2,3,7,8-PeCDD	0.00E+00	0.5	0.00E+00	
Total PeCDD	0.00E+00	n/a		
1,2,3,4,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDD	0.00E+00	0.1	0.00E+00	
Total HxCDD	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.01	0.00E+00	
Total HpCDD	0.00E+00	n/a		
Octa CDD	0.00E+00	n/a		
Total PCDD*	0.00E+00	n/a		
Furans*				
2,3,7,8-TCDF	0.00E+00	0.1	0.00E+00	
Total TCDF	0.00E+00	n/a		
1,2,3,7,8-PeCDF	0.00E+00	0.05	0.00E+00	
2,3,4,7,8-PeCDF	0.00E+00	0.5	0.00E+00	
Total PeCDF	0.00E+00	n/a		
1,2,3,4,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
2,3,4,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDF	0.00E+00	0.1	0.00E+00	
Total HxCDF	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.01	0.00E+00	
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.01	0.00E+00	
Total HpCDF	0.00E+00	n/a		
Octa CDF	0.00E+00	n/a		
Total PCDF*	0.00E+00	n/a		
Total PCDD/PCDF*	0.00E+00	n/a		

TOTAL Dioxin/Furans*	Adjusted lb/hr 0.00E+00	TAPs EL for 2,3,7,8 TCDD 1.53E-10	Exceeds TAPs EL? No	Modeled?
Non-PAH HAPs		**TAPs EL**		
Acetaldehyde*	0.00E+00	3.00E-03	No	
Acrolein*	0.00E+00	0.017	No	
Benzene*	9.90E-02	8.00E-04	Exceeds	YES
1,3-Butadiene*				
Ethylbenzene*	6.69E-02	29	No	
Formaldehyde*	7.97E-01	5.10E-04	Exceeds	YES
Hexane*	2.34E-01	12	No	
Isooctane	1.00E-02			
Methyl Ethyl Ketone*	1.70E-03	39.3	No	
Pentane*	5.29E-03	118	No	
Propionaldehyde*	0.00E+00	0.0287	No	
Quinone*	0.00E+00	0.027	No	
Methyl chloroform*	1.20E-02	127	No	
Toluene*	4.16E-02	25	No	
Xylene*	6.53E-02	29	No	
TOTAL PAH HAPs (lb/hr) =		**1.44E+00**		
TOTAL Federal HAPs (lb/hr)=		**1.44E+00**		
TOTAL Idaho TAPs (lb/hr) =		**1.43E+00**		

Pollutant	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment[b] (lb/hr)	TAPs Emissions Exceed EL Increment?	Modeled?
PAH HAPs				
2-Methylnaphthalene	2.39E-02			
3-Methylchloranthrene*	3.73E-09	2.50E-06	No	No
Acenaphthene	8.70E-04			
Acenaphthylene	2.18E-03			
Anthracene	1.97E-04			
Benzo(a)anthracene	1.04E-04			
Benzo(a)pyrene*	4.41E-05	2.00E-06	Exceeds	See POM
Benzo(b)fluoranthene	3.15E-05			
Benzo(e)pyrene	4.02E-05			
Benzo(g,h,i)perylene	1.16E-05			
Benzo(k)fluoranthene	1.21E-05			
Chrysene	2.66E-04			
Dibenzo(a,h)anthracene	3.18E-07			
Dichlorobenzene*	2.49E-06			
Fluoranthene	2.99E-04			
Fluorene	2.25E-03			
Indeno(1,2,3-cd)pyrene	2.15E-06			
Naphthalene*	2.47E-02	3.33	No	No
Perylene	4.03E-05			
Phenanthrene	3.73E-03			
Pyrene	5.42E-04			
Polycyclic Organic Matter[d,e]	4.21E-04	2.00E-06	Exceeds	YES
Non-HAP Organic Compounds				
Acetone*	2.16E-03	119	No	No
Benzaldehyde	0.00E+00			
Butane	1.72E-01			
Butyraldehyde	0.00E+00			
Crotonaldehyde*	0.00E+00	0.38	No	No
Ethylene	1.73E+00			
Heptane	2.35E+00	109	No	No
Hexanal	0.00E+00			
Isovaleraldehyde	0.00E+00			
2-Methyl-1-pentene	1.09E+00			
2-Methyl-2-butene	1.45E-01			
3-Methylpentane	4.75E-02			
1-Pentene	5.50E-01			
n-Pentane*	5.25E-02	118	No	No
Valeraldehyde (n-Valeraldehyde*)	0.00E+00	11.7	No	No
Metals				
Ammonia*	4.50E-05	0.033	No	No
Arsenic*	1.40E-04	1.50E-06	Exceeds	YES
Barium*	1.48E-03	0.033	No	No
Beryllium*	2.49E-08	2.80E-05	No	No
Cadmium*	1.05E-04	3.70E-06	Exceeds	YES
Chromium*	1.38E-03	0.033	No	No
Cobalt*	6.67E-06	0.0033	No	No
Copper*	7.77E-04	0.013	No	No
Hexavalent Chromium*	1.13E-04	5.60E-07	Exceeds	YES
Manganese*	1.93E-03	0.067	No	No
Mercury*	9.00E-05	0.003	No	No
Molybdenum*	2.28E-05	0.333	No	No
Nickel*	1.58E-02	2.70E-05	Exceeds	YES
Phosphorus*	7.00E-03	0.007	No	No
Silver*	1.20E-04	0.007	No	No
Selenium*	8.75E-05	0.013	No	No
Thallium*	1.05E-05	0.007	No	No
Vanadium*	4.77E-05	0.003	No	No
Zinc*	1.53E-03	0.667	No	No

a) Reserved

b) Toxic Air Pollutants, IDAPA 58.01.01.585 and 586, levels in effect as of January 27, 2006

c) Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and Dibenzofurans (CDDs and CDFs), 1989 update, EPA/625/3-89/016, March 1989 (Source: Mike Dubois, DEQ State Office, April 2005)

n/a = not available IDAPA 58.01.01.586, TAPs Carcinogenic Increments: Total of adjusted emission rates are treated as a single TAP (2,3,7,8 TCDD)

d) IDAPA 58.01.01.585, Polycyclic Organic Matter: Emissions of PAHs shown in bold shall be considered together as one TAP equivalent in potency to benzo(a)pyrene.

e) IDAPA Toxic Air Pollutant, 58.01.01.585 or 586